

PROCEEDINGS OF LEARNED SOCIETIES.

ZOOLOGICAL SOCIETY.

July 11, 1843.—Lovell Reeve, Esq., in the Chair.

“Descriptions of new species of *Nucula*, from the collections of Sir Edward Belcher, C.B., and Hugh Cuming, Esq.,” by Mr. Hinds, were read.

NUCULA CUMINGII. *Nuc. testâ ellipticâ, tenui, epidermide virente indutâ, anticè abbreviatâ, subrostratâ, posticè elongatâ, rotundatâ; margine ventrali acuto, anticè submarginato, dorsali postico, prominulo; cardine anticè dentibus 6, posticè 19–20. Long. 11; lat. 4; alt. $7\frac{1}{2}$ lin.*

Hab. The Asiatic analogue of *N. obliqua*, and is widely diffused over the seas of the Indian Archipelago. It has been obtained at New Guinea; Straits of Macassar; Bolinao, San Nicholas, Sual and Bassey in the Philippines; Singapore; and Straits of Malacca; in a depth of water varying from seven to twenty-three fathoms, on a floor of mud and sandy mud.

Cab. Belcher et Cuming.

It is distinguished from *N. obliqua* by the disposition to rostration of the anterior limb, prominent dorsal margin, slight indentation at the anterior part of the ventral margin, and larger size.

NUCULA MITRALIS. *Nuc. testâ conoidali, solidulâ, epidermide fuscâ indutâ, anticè brevissimè abbreviatâ, rectâ; margine dorsali posticâ inclinatâ, marginibus ventralibus crenulatis; cardine anticè dentibus 10, posticè 28–30. Long. $5\frac{1}{2}$; lat. 3; alt. 4 lin.*

Hab. Straits of Malacca; from seventeen fathoms, mud.

Cab. Belcher.

The very contracted and straight anterior margin of this shell gives it the shape of a mitre, or other similar elevated head-dress.

NUCULA PULCHRA. *Nuc. testâ ellipticâ, solidâ, sulcatâ, interstitiis transversim striatis; marginibus ventralibus crenulatis; cardine anticè dentibus 9, posticè 27–29. Long. 7; lat. 4; alt. $5\frac{1}{2}$ lin.*

Hab. L'Agulhas Bank, Cape of Good Hope; from seventy fathoms.

Cab. Belcher.

NUCULA DIVARICATA. *Nuc. testâ ellipticâ, anticè excavatâ, subacuminatâ, posticè rotundatâ; lineis divaricatis, striatâ; marginibus ventralibus crenulatis; cardine anticè dentibus 7, posticè 22–24. Long. 5; lat. $2\frac{1}{2}$; alt. 4 lin.*

Hab. China Sea; from eighty-four fathoms.

Cab. Belcher.

A single valve only was brought up from this great depth, and presents a character in its sculpture which has not hitherto been met with in any recent species, but which is also found in the following. This peculiarity consists of the presence of lines diverging from an angle near the middle of each valve. It however occurs in an English fossil, *N. Cobboldiæ*.

NUCULA CASTRENSIS. *Nuc. testâ ellipticâ, anticè rotundatâ, epidermide olivacè indutâ; lineis divaricatis; marginibus ventralibus*

crenulatis; *cardine anticè dentibus* 5, *posticè* 11. Long. 3; lat. $1\frac{1}{2}$; alt. 2 lin.

Hab. Sitka, North-west America. A single specimen was dredged in the harbour, from seven fathoms, sand.

Cab. Belcher.

NUCULA TUMIDA. *Nuc. testà ellipticà, tumidà, striatà; marginibus ventralibus integerrimis; cardine anticè dentibus* 6, *posticè* 15; *intùs leviter striatà.* Long. $4\frac{1}{2}$; lat. $2\frac{1}{2}$; alt. $3\frac{1}{2}$ lin.

Hab. Straits of Malacca; from seventeen fathoms, among mud.

Cab. Belcher.

NUCULA MARMOREA. *Nuc. testà ellipticà, solidulà, albidd, sulcatà; iris ad angulum planulatis; latere antico brevi, subacuminato; marginibus ventralibus minutè crenulatis.* Long. $2\frac{1}{3}$; lat. 1; alt. $1\frac{2}{3}$ lin.

Hab. Straits of Malacca; from seventeen fathoms, in society with *N. tumida.*

Cab. Belcher.

NUCULA DECLIVIS. *Nuc. testà parvâ, obliquè ellipticâ, solidulâ, epidermide tenui, fuscâ indutâ; latere antico brevi; margine dorsali longè inclinato, ventralibus crenulatis.* Long. 2; lat. $1\frac{1}{3}$; alt. $1\frac{1}{2}$ lin.

Hab. — ?

Cab. Belcher.

A still more oblique shell than *N. pisum*, to which it is closely allied.

NUCULA NANA. *Nuc. testà minimâ, trigono-ellipticâ, lævigatâ, nitidâ; marginibus ventralibus minutissimè crenulatis; cardine anticè dentibus* 5, *posticè* 11; *umbonibus fuscis.* Long. 1; lat. $\frac{1}{2}$; alt. $\frac{2}{3}$ lin.

Hab. Cagayan, island of Mindanao, Philippines; from twenty-five fathoms, among coarse sand.

Cab. Cuming.

NUCULA BELCHERI. *Nuc. testà politâ, oblongâ, sulcatâ, anticè elongatâ, truncatâ, angulatâ; ab umbone biangulatâ, tertio inter-medio minori; dentibus numerosis, serierum ambarum numero subæquali; margine ventrali subrecto.* Long. 12; lat. $3\frac{1}{2}$; alt. $5\frac{1}{2}$ lin.

Hab. L'Agulhas Bank, Cape of Good Hope; dredged from a depth of forty to fifty-four fathoms.

Cab. Belcher.

NUCULA SEROTINA. *Nuc. testà politâ, oblongâ, sulcatâ, anticè elongatâ, rotundatâ, ab umbone angulatâ; margine dorsali antico subprominulo; umbonibus elevatis.* Long. 6; lat. 2; alt. 3 lin.

Hab. Singapore; from seven fathoms, mud.

Cab. Cuming.

This closely resembles a fossil from the Sutton crag. The latter is a larger shell, of somewhat different proportions, and wants the rounded anterior slope of the recent species.

NUCULA TENELLA. *Nuc. testà oblongâ, lævigatâ, tenui, planulatâ, anticè elongatâ, rotundatâ; umbonibus parvis.* Long. $4\frac{1}{2}$; lat. $1\frac{1}{2}$; alt. $2\frac{1}{2}$ lin.

Hab. Singapore; from seven fathoms, mud. In society with the preceding.

Cab. Cuming.

NUCULA RETUSA. *Nuc. testâ parvâ, nitidâ, lævigatâ, subæquilatèrali, anticè retusâ, subacuminatâ; umbonibus elevatis.* Long. $2\frac{1}{3}$; lat. 1; alt. $1\frac{1}{2}$ lin.

Hab. St. Nicholas, Philippine Islands; Straits of Macassar.

Cab. Cuming et Belcher.

If the Lamarckian species, *N. nicobarica*,—a transversely elongated, finely striated shell, with both extremities rounded and lengthened anteriorly—is taken as a type of departure for the four preceding species, then *N. Belcheri* will be distinguished by its great transverse length, polished sulcated surface, angulated lines, truncated extremity, and three slight projections at the termination of the angles,—*N. serotina* by its polished sulcated surface, lengthened and rounded anterior extremity, and slightly prominent dorsal margin,—*N. tenella* by its flattened shape, smooth polished surface, and by being lengthened and rounded anteriorly,—and *N. retusa* by being nearly equilateral, smooth, polished, and with the anterior portion slightly disposed to terminate in a point.

NUCULA CRASSA. *Nuc. testâ oblongâ, ventricosâ, crassâ, sulcatâ, anticè arcuatè rostratâ, excavatè angulatâ; liris rotundatis; posticè valdè rotundatâ; intùs pallidè luteâ.* Long. 14; lat. 6; alt. 10 lin.

Hab. Australia.

Cab. Cuming.

NUCULA LATA. *Nuc. testâ oblongâ, politâ, planulatâ, lineis impressis excavatâ; anticè elongatâ, latè rostratâ, posticè rotundatâ; margine dorsali anticâ prominulâ; umbonibus parvis.* Long. 8; lat. 2; alt. 4 lin.

Hab. New Guinea; in from five to twenty-three fathoms, among mud.

Cab. Belcher.

NUCULA CÆLATA. *Nuc. testâ luteo-virente, oblongâ, argutè sulcatâ; anticè arcuatè rostratâ, sulcis paululùm oblitteratis; umbonibus prominulis.* Long. 7; lat. 3; alt. 4 lin.

Hab. California, between $38^{\circ} 18'$ and $34^{\circ} 24'$ north latitude; namely, at Russian Bodegas, San Francisco, and Santa Barbara, in from six to ten fathoms.

Cab. Belcher.

More ventricose and acutely beaked than *N. pella*, and presenting a partial obliteration of the sulci near the anterior dorsal margin.

NUCULA VENTRICOSA. *Nuc. testâ oblongâ, pallidè luteâ, ventricosâ, sulcatâ; anticè subrectè rostratâ, umbonibus magnis, prominentibus; margine ventrali anticè coarctatâ.* Long. 7; lat. $3\frac{1}{2}$; alt. 5 lin.

Hab. Straits of Malacca; from seventeen fathoms, mud.

Cab. Belcher.

The character of the sulcation here is very different to that of the

preceding species and of *N. pella*. Here it presents the most usual features of regular furrows with intervening ridges; but in the other two species the ridges are inclined planes, having an inclination towards the ventral margin. In this direction they consequently present a number of step-like elevations, but not in the contrary.

NUCULA RECTA. *Nuc. testâ oblongâ, tumidâ, inclinatè sulcatâ, rectè et attenuatè rostratâ, posticè rotundatâ.* Long. 6; lat. $2\frac{1}{2}$; alt. 4 lin.

Hab. New Guinea; in seven fathoms.

Cab. Belcher et Cuming.

NUCULA EXCAVATA. *Nuc. testâ globosâ, sulcatâ, gibbosè rostratâ, anticè carinatâ; lunulâ excavatâ, ovali, striatâ.* Long. 4; lat. $2\frac{1}{2}$; alt. $3\frac{1}{2}$ lin.

Hab. Panama; dredged among mud in thirty fathoms.

Cab. Belcher.

NUCULA RETICULATA. *Nuc. testâ parvâ, oblongâ, sulcatâ, striis longitudinalibus interstitialibus reticulatâ; anticè arcuatè rostratâ.* Long. 3; lat. $1\frac{1}{2}$; alt. 2 lin.

Hab. Philippine Islands, in several localities: namely, Cagayan, island of Misamis, from twenty-five fathoms; Mindanao, from twenty-five fathoms, sandy mud; and Loay, island of Bohol, from sixty fathoms, clayey sand.

Cab. Cuming.

NUCULA LYRATA. *Nuc. testâ oblongâ, nitidâ, angulatè sulcatâ, acutè subrectè rostratâ, posticè elongatâ, rotundatâ; margine ventrali acuto integro.* Long. $9\frac{1}{2}$; lat. 4; alt. 5 lin.

Hab. Panama; from thirty fathoms.

Cab. Belcher.

NUCULA PUELLATA. *Nuc. testâ oblongâ, nitidâ, leviter striatâ, anticè breviter arcuatè rostratâ, posticè rotundatâ; prope umbones turgidâ.* Long. 3; lat. $1\frac{1}{2}$; alt. 2 lin.

Hab. Malacca; from ten to seventeen fathoms, coarse sand.

Cab. Cuming et Belcher.

NUCULA CRISPA. *Nuc. testâ oblongâ, turgidâ, sulcatâ, arcuatè rostratâ, anticè ab umbonibus exaratâ, posticè obtusè carinatâ; lunulâ ovali.* Long. 3; lat. $1\frac{1}{2}$; alt. 2 lin.

Hab. Gulf of Nicoya; from thirty-six fathoms.

Cab. Belcher et Cuming.

Mr. Lovell Reeve communicated a paper from Mr. Sylvanus Hanley, containing the following "Descriptions of five new species of bivalve Shells, from the collection of W. Metcalfe, Esq."

SOLEA PHILIPPINARUM. *Sol. testâ lineari, convexâ, crassâ, subarcuatâ, albido-lutescente; latitudine longitudinem quintuplo superante; margine posticè rotundato, anticè convexo; natibus ad quintam partem totius latitudinis collocatis; epidermide amplâ, rugosâ, impolitâ, olivaceo-flavescente; dente valido, acuto, in utrdque valvâ prominente.* Lat. 1; long. 5 poll.

Hab. ad Insulas Philippinarum.

A species nearly allied to the *S. ambiguus* of Lamarck, from which however it differs, both in its greater curvature and in the absence of the discal rays which adorn that species. Its breadth is throughout equal, and the umbones are considerably flattened.

SOLENI ACINACES. *Sol. testâ linearî, nivedâ, subdepressâ, arcuatâ, posticè abruptâ, anticè attenuatâ, rotundatâ; latitudine longitudinem propè quadruplò superante; margine postico vix convexo; epidermide nitidâ flavescente; cardine terminali, dente in utràque valvâ unico, rotundato.* Long. $\frac{3}{2}$; lat. 3 poll.

Hab. — ?

A shell scarcely to be confounded with any of this genus, but with somewhat the aspect of *S. scalprum*.

SOLENI CYLINDRACEUS. *Sol. testâ linearî, rectâ, cylindracedâ, subepidermide fugaci, albâ, rubido-purpurascente variegatâ; latitudine longitudinem sextuplò superante; margine anticè rotundato-obtuso, posticè abrupto, concavo; cardine terminali, dente sub-lunari in utràque valvâ prominente.* Long. $\frac{1}{2}$; lat. 3 poll.

Hab. — ?

A tolerably strong shell, intermediate between the *S. linearis* of Wood and the *S. brevis* of my descriptive Catalogue. The former species is considerably narrower from the umbones to the ventral margin, these proportions being precisely reversed in the latter. The colouring likewise, which in the adult is almost entirely confined to the posterior half, differs from its arrangement in the *S. brevis*.

MESODESMA TRIQUETRUM. *Mes. testâ obliquè triangulari, valde inæquilaterali, crassissimâ, tumidâ, læviusculâ, sordidè albâ; posticè brevi, rotundatâ, anticè productâ, subacuminatâ, subrostratâ; margine antico declivi, ventrali arcuato; pube depressâ; foveâ ligamentali inter nates distantes planè hiante; dentibus lateralibus magnis, validis.* Long. $\frac{7}{8}$; lat. 1 poll.

Hab. — ?

I know of no species which could possibly be confused with this extraordinary shell, which, from the peculiar triangular cavity between the beaks (as in the genus *Schizodesma* of Gray), may eventually prove the type of at least a subgenus. In the unique specimen before me there is the appearance of ochraceous rays, but I do not venture to consider them as characteristic until the comparison with further specimens. The shape reminds one of *Mulinia Donaciformis*. The cardinal tooth is bifid in the left valve.

MESODESMA PLANUM. *Mes. testâ ovato-sublenticulari, transversâ, valde compressâ, inæquilaterali, utràque extremitate rotundatâ; subepidermide cornedâ, albâ, levigatâ; natibus elevatis, acutis; margine ventrali arcuato; foveâ ligamentali angustâ.* Long. $\frac{6}{7}$; lat. 1 poll.

Hab. — ?

A peculiarly flat shell, which is not unlike *M. complanatum*, but differs as well in the colouring of its epidermis as in many other particulars. From the little convexity of the dorsal margins, the

beaks appear extremely angulated. The teeth are obtuse, and the lateral short and approximate.

Note.—The shells described by me in this and the preceding papers will be figured in Mr. Wood's second Supplement to the 'Index Testaceologicus.'

A new species of *Chiton*, from the Philippine Islands, was exhibited by Mr. Cuming, which was thus characterized by Mr. G. B. Sowerby:—

CHITON BIRADIATUS. *Chi. testâ ovali, subelongatâ, subdepressâ, obtusè angulatâ; areis centralibus longitudinaliter minutè scabrososulcatis; areis lateralibus subelevatis, utrinque costis duabus bifidis validè irregulariter moniliformibus; areis terminalibus radiatim rugoso-costatis, margine minutissimè granuloso; colore pallidè fulvo, griseo maculato; margine griseo fasciato.* Long. .60; lat. .35.

Hab. Dumaguete, Ins. Negros, Philippinarum. H. Cuming legit. This species differs from *Ch. Janierensis* in having the lateral ribs bifid and the sculpture generally much more minute.

July 25.—William Yarrell, Esq., Vice-President, in the Chair.

Mr. Prince exhibited to the Meeting, on the part of Mr. Gould, nine new Birds, collected during the recent voyage of H.M.S. Sulphur, which, together with *Coryphilus Dryas*, exhibited by Mr. Gould at the meeting held on the 22nd of November 1842, and *Pteroglossus erythropygius* and *Pterocles personatus*, exhibited by him on the 14th of February 1843, comprise the whole of the ornithological novelties brought home by the expedition.

The species now exhibited were

HALCYON SAUROPHAGA. *Halc. capite, collo, dorso superiore et corpore subtùs albis, cæteris partibus saturatè cæruleis, dorso virescente.*

Head, neck, upper part of the back and all the under surface white, with the exception of the lores, which are black, and a narrow longitudinal mark immediately behind the eye, which is deep blue; remainder of the upper surface, wings and tail deep blue, tinged with green on the back and scapularies; bill black; basal half of the under mandible horn-colour; tarsi and feet blackish brown, tinged with purple.

Total length, $10\frac{1}{2}$ inches; bill, $2\frac{3}{4}$; wing, $4\frac{3}{4}$; tail, $3\frac{3}{4}$; tarsi, $\frac{3}{4}$.

Remark.—A typical *Halcyon* and one of the largest of the genus, differing from every other species known, particularly the *Alcedo leucocephala* of Latham, which specific term would be much more appropriate for the present bird.

Hab. New Guinea.

PIPPA VITELLINA. *Pip. vertice, vittâ dorsali, alis, caudâque nigris; mento, guld, pectore et torque nuchali vitellinis, partibus reliquis olivaceo-viridibus.*

Crown of the head, band across the back, wings and tail black; chin, throat, ear-coverts, chest and collar round the back of the neck,

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beautiful yolk-of-egg yellow; rump and upper tail-coverts olive-green; abdomen and under tail-coverts paler olive-green, into which the yellow of the chest gradually passes; bill black; legs yellowish brown.

Total length, $3\frac{3}{4}$ inches; bill, $\frac{5}{8}$; wing, 2; tail, $1\frac{1}{8}$; tarsi, $\frac{3}{4}$.

Hab. Panama.

The only specimen procured is now in the British Museum.

LEUCOSTICTE GRISEOGENYS. *Leuc. fronte nigra, genis et occipite cinereis, reliquis partibus fuscis; tectricibus alarum, tectricibus caudae superioribus et inferioribus, abdominisque plumis ad apicem roseo-marginatis.*

Forehead and throat shining black; cheeks and back of the head grey; general plumage umber-brown; wing-coverts, upper and under tail-coverts, flanks and abdomen, tipped with beautiful rosy red; primaries and tail-feathers brown, faintly margined with rosy red; bill yellow; feet black.

Total length, $7\frac{1}{2}$ inches; bill, $\frac{5}{8}$; wing, $4\frac{1}{2}$; tail, $3\frac{1}{2}$; tarsi, 1.

This is the largest of the *Fringillinae* Mr. Gould has yet seen; it is nearly allied to, but differs from, the *Leucosticte tephrocotis*, Swains., in the greater depth of its colouring, in the cheeks as well as the hinder part of the head being grey, and in the greater abundance of the rosy hue upon the abdomen and under tail-coverts.

NECTARINIA FLAVIGASTRA. *Nect. corpore supernè flavescente-olivaceo; lined superciliari et corpore subtùs nitidè flavis.*

Crown of the head, ear-coverts and all the upper surface yellowish olive; stripe over the eye and all the under surface bright yellow; bill and feet black.

Total length, $4\frac{1}{4}$ inches; bill, $\frac{3}{4}$; wing, 2; tail, $1\frac{1}{8}$; tarsi, $\frac{5}{8}$.

Hab. New Ireland.

The single specimen procured is in the collection of J. O. Goodridge, Esq., Assistant-Surgeon of H.M.S. Starling.

CACTORNIS INORNATUS. *Cact. corpore superiore nigrescente-fusco, singulis plumis olivaceo-fusco non sine tincturâ rufescente marginatis; guld et corpore inferiore fulvis, plumis notâ centrali obscuriore.*

Crown of the head and all the upper surface blackish brown, each feather margined with reddish olive-brown, the secondaries, wing-coverts and tail being more broadly margined and inclined to buff; throat and under surface buff, each feather having a darker centre; bill horn-colour; feet blackish brown.

Total length, 4 inches; bill, $\frac{1}{2}$; wing, $2\frac{3}{4}$; tail, $1\frac{3}{4}$; tarsi, $\frac{3}{4}$.

Hab. Bow Island.

The only specimen procured is said to be a female. This species is I believe the only insessorial form inhabiting the island. Its principal interest consists in its forming an additional species of a small group of birds hitherto believed to be peculiar to the Galapagos Islands.

In the possession of the Zoological Society, to whom it was presented by the Lords Commissioners of the Admiralty.

PSITTACUS FLAVINUCHUS. *Psitt. viridis, vittâ nuchali nitidè flavâ; remigum primorum pogoniis internis nigris, remigis primi pogonio externo saturatè cæruleo; reliquorum pogoniis externis ad basim saturatè viridibus, exindè cæruleis, remigum minorum pogoniis externis coccineo, viridi et cæruleo pictis, rectricibus utrinque tribus externis cum pogoniis internis ad basim coccineis.*

Head, throat and under surface light green; the feathers on the sides of the neck slightly margined at the tip with black; at the nape a broad band of beautiful yellow; back, scapularies and wing-coverts dark green, the latter with paler edges; first primary black on the inner web and deep blue on the outer, the inner webs of the remaining primaries black; the basal third of their outer webs green, and for the remainder of their length deep blue, the whole very slightly tipped with buff; first four primaries black on their inner webs; their outer webs crimson for more than the basal half of their length, then green, and lastly deep blue, the two latter colours gradually blending into each other; the rest of the secondaries black on their inner and green on their outer webs, with a spot of deep blue near the extremity; tail yellowish green, crossed on the middle by a broad band of dark green, the three lateral feathers with a patch of crimson on their inner webs; basal portion of the inner webs of all the wing-feathers on their under surface deep grass-green; bill horn-colour; feet mealy white.

Total length, 14 inches; bill, $1\frac{3}{8}$; wing, 9; tail, $5\frac{3}{4}$; tarsi, 1.

Hab. Shores of South America and the Pacific.

In the collection of the Zoological Society.

COCYZUS FERRUGINEUS. *Cocc. capite cinereo, dorso alisque saturatè ferrugineo-fuscis, colore ad apices remigum primorum pallescente; caudâ in medio fuscâ, gradatim ad rectrices externas albescente; corpore subtùs fulvo.*

Head grey, tinged on the crown with ferruginous; back and wings dark rusty-brown, becoming paler towards the extremities of the primaries, which are brown on their inner webs at the tip; two centre tail-feathers sandy buff, passing into brown at the tip; the two next on each side sandy at the base, deepening into brown, which is darkest on the outer web; that nearest the central feathers slightly, and the next largely tipped with white; the two lateral feathers on each side buff at the base, passing into white, the inner one of the two with a line of brown down the basal two-thirds of its length; all the under surface buff, palest on the throat; bill olive-black, under mandible yellow at the base; feet black.

Total length, $11\frac{1}{2}$ inches; bill, $1\frac{1}{8}$; wing, $5\frac{1}{4}$; tail, $6\frac{1}{4}$; tarsi, $1\frac{1}{8}$.

Hab. Cocos island, North Pacific.

In the collection of the Zoological Society.

PENELOPE LEUCOGASTRA. *Pene. capite et collo superiore olivaceo-fuscis, singulis plumis cinereo marginatis; corpore superiore et alis splendide fuscis nitore metallico; caudâ æneo-viridi, rectricibus externis latè albo marginatis; abdomine et femoribus albis.*

Head and upper part of the neck olive-brown, each feather mar-

gined with grey; back, wings and upper tail-coverts rich brown with a bronzy lustre; tail bronzy-green margined with bronzy-brown, all but the two centre feathers broadly tipped with pure white; chest dull brown, gradually passing into the white of the abdomen, thighs and vent; under tail-coverts light buff; bill and feet black.

Total length, 18 inches; bill, $1\frac{1}{4}$; wing, 8; tail, 9; tarsi, 2.

Hab. — ?

In the collection of the Zoological Society.

LARUS BRACHYRHYNCUS. *Lar. capite, collo, corpore superiore, uropygio crissoque albis; dorso alisque cinereis; remige primo, ad pogonium externum et ad apicem, remigibusque sequentibus tribus, ad apicem, nigris; remigibus secundo, tertio et quarto, notâ cinered terminali; quinto vittâ nigrâ et apice cinereo.*

Head, neck, all the under surface, rump, upper and under tail-coverts and tail pure white; back and wings, including the primaries, grey, passing into white on the tips of the scapularies, secondaries, and all but the first five primaries, which are thus marked:— the outer primary has its external web and three inches of the tip of the inner web deep black; the next primary is tipped with black for three inches and a half on its outer, and two inches and a half on its inner web, and has a very minute speck of grey at the extreme tip; the third primary is tipped with black for two inches, and has a small spot of grey at the extremity; the fourth is tipped with black for an inch and a quarter, and has a larger spot of grey at the extremity than the third; and the fifth is crossed by an irregular band of black near the tip three-quarters of an inch wide, the extremity being grey, fading into white on the margin of the inner web; bill primrose-yellow; feet orange-yellow.

Total length, 14 inches; bill, $1\frac{1}{2}$; wing, $12\frac{1}{4}$; tail, $5\frac{1}{4}$; tarsi, $1\frac{1}{8}$.

Hab. Russian America.

The species of *Ortyx* exhibited were

ORTYX PARVICRISTATUS. *Ort. cristâ brevi, rectâ, pallidè fuscâ, ad apicem fulvâ; fronte fulvâ; guld et vittâ per latera capitis ferrugineo-rubris; torque collari anticè angustâ, posticè latâ, nigrâ, albo guttatâ et castaneo tinctâ; corpore superiore cinereo-nigro et fusco adperso; pectore rufo, singulis plumis guttis sex pallidè fulvis, et saturatè fusco circumdatis, ornatis; his apud latera et abdomen grandioribus et fusco-nigrescente.*

Crest short, straight, light brown tipped with buff; forehead buff; throat and a broad stripe down each side of the head, above and behind the eye, rusty-red; ear-coverts brown; collar surrounding the neck narrow in front and broad, behind black, spotted with white and stained with chestnut; centre of the back, between the shoulders, minutely freckled grey, brown and black; remainder of the back blackish brown, each feather freckled on the margin with grey; scapularies freckled grey and brown, and ornamented on their inner webs with large patches of dark brown; wing-coverts freckled, and with a large spot of dark brown and another of white near the extremity of each feather; primaries light brown fringed with greyish

white, and a few indistinctly barred with freckles of the same on their outer webs; tail brown, crossed by narrow freckled bands of whitish and darker brown; across the breast a band of greyish red blotched with a darker tint; breast rufous, each feather with six spots of light buff encircled with dark brown, the spots gradually increasing in size on the flanks and lower part of the abdomen, and the rufous tint changing into blackish brown; vent buff; under tail-coverts like the abdomen, but the markings less distinct; bill black; feet black.

Total length, 8 inches; bill, $\frac{1}{2}$; wing, $3\frac{3}{4}$; tail, $2\frac{3}{8}$; tarsi, $1\frac{1}{8}$.

Hab. Santa Fé de Bogota.

Nearly allied to *O. Sonnini*.

For an additional example of that division of the *Ortygidæ* to which the subgeneric term of *Odontophorus* has been given, Mr. Gould proposed, from the marbled appearance of its markings, the specific term of *marmoratus*, with the following characters:—

ORTYX (ODONTOPHORUS) MARMORATUS. *Ort. spatio circumoculari nudo, coccineo; plumis auricularibus rufo-castaneis; cristâ elongatâ, laxâ, fuscâ, plumis singulis flavescenti-fusco per medium irroratis; nuclâ nigrescenti-fuscâ, lineis irroratis cinereis angustis, transversim fasciatâ; primorum pogoniis externis arenaceo-fulvo guttatis; corpore inferiore fusco, lineis irregularibus et crebris nigrescentibus cinereis, et arenaceo-fulvis transversim fasciato.*

Naked orbits, scarlet; ear-coverts reddish chestnut; crest lengthened, curved and flowing, dark brown, freckled down the middle of each feather with yellowish brown; back of the neck blackish brown, crossed by numerous narrow freckled bands of grey; lower part of the back yellowish brown, freckled with a darker and a lighter tint; wings dark brown, the coverts and inner webs of the secondaries crossed by numerous broad irregular freckled bands of sandy buff; primaries spotted along their outer webs with light sandy buff; a few of the scapularies with a stripe of white freckled with black down the centre; under surface brown, crossed by numerous irregular narrow bands of blackish brown, grey, and sandy buff; bill and feet black.

Total length, 9 inches; bill, $\frac{5}{8}$; wing, $5\frac{3}{4}$; tail, 2; tarsi, $1\frac{5}{8}$.

Hab. Santa Fé de Bogota.

Nearly allied to *Odon. Guianensis*.

And for an Albatros nearly allied to, but larger than, *Diomedea chlororhyncha*, and which also differs from that species in the colouring of the culmen, he proposed to designate

DIOMEDEA CULMINATA. *Diom. spatio circumoculari nigrescenti-cinereo, gradatim pallescente; facie albâ; vertice corpore subtus et uropygio albis; dorso, alis et caudâ cinerescenti-fuscis; culmine olivaceo-flavo.*

Space surrounding the eye blackish grey, gradually passing into the white of the face; crown of the head, all the under surface and rump white; back of the neck sooty-grey; back, wings and tail dark greyish brown, the latter with white shafts; culmen for its

whole length olive-yellow; base of the under surface of the lower mandible fleshy horn-colour, remainder of the bill black; point of the upper mandible horn-colour; feet bluish white.

Total length, 30 inches; bill, $4\frac{1}{4}$; wing, 20; tail, 9; tarsi, $3\frac{1}{4}$.

Hab. Southern, Indian, and South Pacific Oceans.

Oct. 24.—William Yarrell, Esq., Vice-President, in the Chair.

“Descriptions of new species of *Scalaria* and *Murex*, from the collection of Sir Edward Belcher, C.B.,” by Mr. Hinds.

SCALARIA GLABRATA. *Scal. testâ elongatâ, politâ; anfractibus decenis, rotundatis, ferè disjunctis; costis membranaceis, vicinis suprâ et infrâ connatis, propè suturam dilatatis; anfractu ultimo decem-costato; aperturâ ovali; umbilico peritremate tecto.* Axis 8 lin.

Hab. Amboina; Straits of Macassar; Straits of Malacca. On a muddy floor, in from ten to seventeen fathoms.

The specimens were all obtained without the animal, but the mottled appearance which they present seems to indicate, that when recent they were most probably of a light brown colour.

SCALARIA DIANÆ. *Scal. testâ ovatâ, acuminatâ, politâ; anfractibus septenis connatis, costis valdè aleformibus ornatis; anfractu ultimo hexacostato, ad basin obtusè carinato; aperturâ rotundatâ, infernè subtruncatâ; peritremate extûs alato; umbilico nullo.* Axis 5 lin.

Hab. Gulf of Nicoya; from thirty-six fathoms, among mud.

SCALARIA VESTALIS. *Scal. testâ ovato-elongatâ, pallidâ; anfractibus nonis rotundatis, connatis; costis numerosis, tenuibus, sparsim varicosis, lineis transversis eleganter cancellatis; aperturâ ovali; umbilicatâ.* Axis $4\frac{1}{2}$ lin.

Hab. New Guinea; from seven fathoms, among mud.

An elegant cancellated species, with numerous fine ribs, which, when becoming varicose, are slightly spined above. The number of ribs on the last whorl appears little liable to fluctuation, and they become a very useful and valuable character in the discrimination of the species. In *S. vestalis* their number is twenty-two.

SCALARIA SUTURALIS. *Scal. testâ elongatâ, pallidè fuscâ; anfractibus decenis, connatis; costis numerosis, parvis, approximatis, lineis transversis decussatis, subdistanter varicosis; suturâ et anfractu ultimo ad basin carinato; aperturâ subrotundâ; umbilico nullo.* Axis 8 lin.

Hab. Straits of Malacca; from seventeen fathoms, among mud.

An elongated shell; also somewhat cancellated by lines traversing the numerous small ribs. At intervals of something less than the volution of each whorl a thick rounded varix is formed: a keeled line also occupies the most inferior portion of the whorl, close to the suture. The specimens had been left by the animal some time previous to being captured, and though they are not in very good condition, there still remains a disposition to a dark brown banding.

SCALARIA ACICULINA. *Scal. testâ elongatâ, politâ; anfractibus decenis subdisjunctis; costis rotundatis, supernè angulatis;*

anfractu ultimo decemcostato; aperturâ ovali; umbilico parvo.
Axis $3\frac{1}{2}$ lin.

Hab. West coast of intertropical America.

SCALARIA CREBERRIMA. *Scal. testâ ovato-elongatâ, albidd; anfractibus septenis, connatis, costis tenuibus creberrimè instructis; aperturâ ovali; umbilico nullo.* Axis 3 lin.

Hab. North coast of New Guinea; from seven fathoms, among mud.

The whorls are closely set with ribs, in numbers almost too great to be enumerated.

SCALARIA PORRECTA. *Scal. testâ ovato-elongatâ, fuscâ, politâ; anfractibus octonis, connatis, supernè rotundatis; costis acutis, supernè aculeatis; anfractu ultimo septemdecemcostato, pallidè fasciato; aperturâ ovali, ad basin truncato; umbilico nullo.* Axis $4\frac{1}{3}$ lin.

Hab. Straits of Malacca; from seventeen fathoms, among mud.

SCALARIA VULPINA. *Scal. testâ elongatâ, fuscâ; anfractibus nonis rotundatis, connatis; costis obtusis, rotundatis, lineis elevatis decussatis; suturâ profundâ; anfractu ultimo novemcostato, ad basin obtusè carinato; aperturâ rotundâ; umbilico nullo.* Axis 3 lin.

Hab. Island of Quibo, Veragua, Central America; from thirty fathoms, among mud; the temperature below being 58° , and at the surface 82° .

A pretty little shell, which, under first impressions, the propriety of placing in *Scalaria* might be called in question, though it possesses the characters assigned to the genus. Still there is a difference of character and appearance, which creates a momentary hesitation. But, together with its deep suture, the basal whorl is provided at its inferior surface with a blunt keel, which is also to be met with in a few other species of *Scalaria*, but I am not aware in any other genus, and which induces me to place it here without the least doubt as to the propriety of its location.

The following new species of *Murex* were collected, with three exceptions, during the voyage of the Sulphur, under the command of Sir Edward Belcher, C.B., and figures of them will shortly be published in the 'Zoology' of the Voyage. These descriptions are by Mr. Hinds.

MUREX ANTILLARUM. *Mur. testâ subfusiformi, pallidd, trivariicosâ; anfractibus septenis rotundatis; varicibus tribus rotundatis, spiniferis, posticè fornicatis; ad angulum anfractuum spinâ unicâ elongatâ, deinde quinque breviusculis; interstitiis tri-, vel rariùs, quadri-fariam noduloso-costatis, lineis transversis fuscis penicillatis; canali elongato, aperto, propè anfractum basalem subflexo, spinis duabus cavis gerente.* Axis 18 lin.

Hab. Tortola, West Indies. Mus. Cuming.

This shell is another of those typical forms of *Murex* which have recently become somewhat numerous, and which appear to be confined to the tropical seas. I am strongly disposed to think that it is

meant to be represented in fig. 69 of the 'Conchological Illustrations,' which is mentioned as a variety of *M. Motacilla*, though there are still some little points of difference. A fine specimen often permits a conchologist to clear up his doubts as to specific importance, and I have had the assistance of such in drawing up the above description. Indifferent specimens are not uncommon, and Mr. Sowerby, jun. had most probably only such, and was compelled to leave it as a variety of *M. Motacilla*.

MUREX CENTRIFUGA. *Mur. testâ gracillimè fusiformi, pallidè conedâ, passim creberrimè striatâ; varicibus tribus, subalatis, in spinis compressis laciniatis; spirâ ad angulum anfractuum elongatâ, subrectâ; interstitiis nodo unico; aperturâ elongatâ, ovali; labro intus levi; canali mediocri, rectiusculo, clauso, ad basin subrecurvo.* Axis 16 lin.

Hab. West coast of Veragua; on a sandy floor in fifty-two fathoms. This species has the general character of *M. pinniger* and *M. capensis*, and is very closely allied to the latter.

MUREX FESTIVUS. *Mur. testâ fusiformi, crassâ, fulvâ, trivariicosâ; varicibus simplicibus, recurvis, supernè cristatis, subtilissimè creniferis; interstitiis nodulosis, lineis subgeminis transversis fuscis eleganter ornatis; aperturâ ovali; labro intus sparsim denticulato; canali valdè clauso, ad basin subrecurvo.* Axis 13 lin.

Hab. Bay of Madalena, California; dredged from seven fathoms, on a sandy floor.

MUREX FOVEOLATUS. *Mur. testâ fusiformi, crassâ, multivariicosâ, transversim creberrimè sulcatâ, laminis minimis longitudinalibus foveolatâ atro-purpureo pallidè bifasciatâ; varicibus septenis simplicibus, posticè rotundatis, anticè margine acutâ; aperturâ ovali, coarctatâ; labro intus obtusè denticulato; labio interno producto; canali aperto, subrecurvo.* Axis $12\frac{1}{2}$ lin.

Hab. Bay of Madalena, California; with the preceding.

MUREX ANANAS. *Mur. testâ fusiformi, ventricosâ, crassâ, multivariicosâ; anfractibus septenis supernè subplanulatis, transversim costatis, costis alternatè minoribus; varicibus senis rotundatis spiniferis, spirâ supremâ præcipue maximâ, brevi, rectâ, solidâ, biplicatâ, transversim compressâ, cæteris brevissimis subæqualibus; aperturâ roset, rotundatâ, seu paulisper elongatè ovali, posticè canaliculatâ; canali mediocri, subobliquo, aperto, margine columellari rugulosâ, dorso bifariam spinoso, seriè supremâ superante.*

Hab. West coast of Africa. Mus. Cuming.

A shell closely resembling *M. rosarium* in its size and proportions, but finds its specific distinction in its greater massiveness, the superior size of its upper series of spines, and the absence of nodules on the interstitial ribs. Both shells have a distinct fasciation of three dark bands, but our species is entirely wanting in that beautiful and elegant covering of striae which is so conspicuous in the fine specimen of *M. rosarium* in Mr. Cuming's collection.

MUREX BELCHERI. *Mur. testâ magnâ, fusiformi, crassâ, ponderosâ, pallidè fuscâ, multivariicosâ; anfractibus quadratis, albo fascia-*

tis; *varicibus numerosis, foliaciis simplicibus, supernè elongatis, fornicatis, ætate valdè erosis*; *aperturâ quadratâ, pallidè carnèd; labro intùs lævi, infernè dente magno, crasso, obtuso*; *canali tortuoso, aperto, ad sinistram inclinato*; *umbilico præcipuè magno.* Axis 66 lin.

Hab. San Diego, California. From a bank of mud near the head of the harbour.

MUREX CALIFORNICUS. *Mur. testâ fusiformi, fulvâ, trivariçosâ; anfractibus senis, supernè planulatis, transversim costatis, costis rotundatis, subdistantibus, ad lacinias varicum incurrentibus, intervallis costellatis, creniferis; varicibus sex-laciniatis, supremâ maximâ alatâ, deinde gradatim minoribus creniferis; aperturâ ovali, lævi; canali clauso, recurvo, ad basin purpurascente.* Axis 18 lin.

Hab. California. Mus. Cuming.

MUREX HAMATUS. *Mur. testâ rhomboïdèd, pallidè luted, multivariçosâ; anfractibus septenis, inter varices areis quadratis; spirâ subelongatâ, acutâ; varicibus senis alatis, laciniis uncinatis; aperturâ ovali, infernè dente parvo acuto; canali clauso, rectiusculo.* Axis $13\frac{1}{2}$ lin.

Hab. Bay of Guayaquil; from a muddy floor, in twenty-one fathoms.

This shell, together with *M. emarginatus*, *M. monoceros* and *M. Nuttali*, belong to a section of the genus which has been called by Conrad *Cerastoma*. But if the marginal tooth of the aperture is to be regarded as sufficient grounds for separation, then I fear we must draw freely on some of the typical species, where its existence seems to have been little heeded. Mr. Swainson assigns it as a character of his subgenus *Muricanthus* or *Centronotus*; but for the above reasons it ceases to possess any importance. In *M. hamatus* the situation of the tooth on the dorsal varices is marked by a small sharp notch.

MUREX CIRROSUS. *Mur. testâ fusiformi, ventricosâ, pallidè carnèd, formosissimè multivariçosâ; suturâ profundâ, propè nigricante; varicibus nonis sexfariam laciniatis; laciniis fistulosis, albis, respectantibus, gradatim minoribus; interstitiis costis rotundatis lacinias incurrentibus; aperturâ ovali; labro intùs lævi; canali gracili, recurvo, ferè clauso, dorso bifariam laciniato, serie superiore gemind.* Axis 9 lin.

Hab. Straits of Macassar. In fifteen fathoms, among sand and fine gravel.

An uncommonly beautiful species, both from the delicacy of its colour, and the rich, varied, and elaborate character of its sculpture.

MUREX GRAVIDUS. *Mur. testâ globosè fusiformi, multivariçosâ; anfractibus senis rotundatis, transversim costatis, supernè fusco fasciatis; costulis approximatis, lamellosis; varicibus quinis costulis subdivergentibus transitis, posticè foveolatis; aperturâ ovali, productâ; labro intùs lævi; canali longiusculo, aperto, ad sinistram inclinato.* Axis 10 lin.

Hab. Cape Blanco, west coast of Africa. From sixty fathoms.

MUREX RADICATUS. *Mur. testâ fusiformi, pallide lutescente, multivaricosâ; varicibus quinis, laciniatis, anticè abruptis; laciniis compressis, subquadratis, medio lined duplicatis, posticè medio interstitiorum exsistentibus; aperturâ ovali, productâ; labro intus lævi; canali ferè clauso, ad basin subrecurvo, Axis 10 lin.*

Hab. San Blas, west coast of Mexico. From eleven fathoms, among mud.

In this species the laciniaë of the varix take root near the centre of the interspace, whence they proceed directly forwards. They are of a squarish compressed shape, and are partially divided in their middle by an impressed line.

MUREX PERITUS. *Mur. testâ subrhomboided, albidd, multivaricosâ; anfractibus septenis, supernè angulatis et fuscis, ultimo elongato in canalem attenuato, transversim striatis; varicibus senis tenuibus, laciniatis, anticè inter lacinias seriebus duabus eleganter crenatis; laciniis acuminatis, uncinatis, gradatim minoribus; aperturâ obovatâ; canali aperto, ad basin subrecurvo. Axis 9½ lin.*

Hab. Bay of Madalena, California. From seven fathoms, on a sandy floor.

BOTANICAL SOCIETY OF LONDON.

Nov. 18, 1843.—J. E. Gray, Esq., F.R.S. &c., President, in the Chair.

Dr. Bromfield presented a species of *Calamintha* new to the British flora, discovered by him in the Isle of Wight.

Read "Notes of a Botanical Excursion to Warwickshire, Worcestershire, Wales and Ireland in August last," by Mr. S. P. Woodward.

Nov. 29.—At the seventh Anniversary Meeting, J. Reynolds, Esq., Treasurer, in the Chair, the following officers were elected for the ensuing year:—J. E. Gray, Esq., F.R.S., President; Mr. G. E. Dennes and Mr. T. Sansom were respectively re-elected Treasurer, Secretary and Librarian.

Dec. 13.—The President nominated Hewett C. Watson, Esq., F.L.S., and John Miers, Esq., F.R.S., Vice-Presidents.

Feb. 2, 1844.—A. Gerard, Esq., in the Chair.

Read the commencement of a paper by Edwin Lees, Esq., F.L.S., being "A Synoptical View of the British Fruticose *Rubi*, arranged in groups, with explanatory remarks."

The groups into which Mr. Lees unites the species have been already reported (*Annals*, No. 74, p. 68). The list of species will shortly be published in a new catalogue of British Plants, now in the press, for the Botanical Society of London. The following explanations, in the words of the author, will sufficiently show that his arrangement has not been founded upon any brief or superficial study of his subject.

"Having previously designated the general groups into which the British Fruticose *Rubi* are divisible, I now proceed to attempt the more difficult task of describing the species in each group, and tracing them in succession in a synoptical form. In doing this, as I must necessarily propose some alterations, it is advisable that the

candid and inquiring botanist should be informed as to the principles I have kept in view.

“In the first place then, I have desired to make no innovation but what seemed imperatively required for correct elucidation, and have therefore made every effort to profit by the labours of preceding eminent botanists who have particularly studied the *Rubi*, as Sir J. E. Smith, Drs. Weihe and Nees von Esenbeck, Mr. Borrer and Professor Lindley.

“But, secondly, I have observed with the eye of an original explorer, tracing every form that appeared to me different, without reference to the ideas of other botanists. And thirdly, having observed the same plants in a living state for several successive years, I have collated and revised my original observations, sketched every apparent species, and compared them again and again with the figures, descriptions and named specimens of botanists of authority. Thus I have been enabled in a great degree to understand the forms to which particular names have been assigned, and to test their propriety by my own experience. I trust therefore that I shall not be considered guilty of assumption where I may differ from others, being only anxious for the nearest approximation to correctness.

“It is unnecessary for me to go into the question as to what constitutes a species in this genus; for, as I have before hinted, it is not unlikely that the forms in every *group* may be really only varieties, sporting from a normal form and into each other. But if botany be a science of discrimination, it is at any rate convenient to name every remarkable continuing form as a species or subspecies, since otherwise minor variations can scarcely be distinguished, or must be placed in the same rank with more important deviations of structure. Indeed Nees von Esenbeck, one of the authors of the elaborate ‘*Rubi Germanici*,’ has well remarked in a letter to the Rev. Mr. Leighton in the ‘*Shropshire Flora*,’—‘I am not of opinion that all the forms proposed by my friend Dr. Weihe *as species* are to be considered as such, but in my opinion it is absolutely necessary to look for the greatest number of forms which present themselves in the genus before attempting to judge of species and fixing their limits. I can scarcely tell which is most perplexing in the path of our science: whether, with Dr. Weihe, to distinguish as species every form of bramble that presents itself to our view; or, with M. Koch, to consider all as modifications of one only. In this case I do not doubt that these are matters purely of observation, and that the faithful observer of nature will find that the truth really is between these two extremes.’”

BOTANICAL SOCIETY OF EDINBURGH.

Thursday, the 11th of April 1844, Prof. Graham, President, in the Chair.

Various donations to the Library and Museum were announced and the following papers read; but as all of them will appear in these ‘*Annals*,’ their titles only are now recorded.

1. “On four genera of *Desmidiæ*, viz. *Euastrum*, *Tetmemorus*, *Micrasterias*, and *Berkleya*,” by Mr. Ralfs.

2. "On a monstrosity of the pistil of *Primula vulgaris*," by Mr. C. C. Babington.
3. "On the fructification of *Cutleria*; and a continuation of a paper on the Marine Algæ of the vicinity of Aberdeen," by Dr. Dickie.
4. "On some species of the genus *Ænanthe*," by Mr. John Ball.

MISCELLANEOUS.

RESEARCHES UPON THE TRANSFORMATIONS OF THE APPENDAGES OF
THE ARTICULATA. BY M. BRULLÉ.

THERE are two kinds of transformations or metamorphoses to which the appendages of the Articulata are submitted,—the one *real*, the other *representative* (figurées). The *real* transformations are those which occur at different periods during the existence of an Articulate animal, and which are particularly well-marked in certain classes, where the laws which they follow offer most interesting subjects for investigation. The *representative* transformations are those which are presented by one and the same appendage of the body when it is regarded throughout the different groups of Articulata. We then see how the leg of one of these animals corresponds to the maxilla, or that again to the mandible of another, &c. This occurs also in the appended parts of certain phanerogamous vegetables, which, as is well known, are transformed through the influence of cultivation in such a manner as either to usurp the place of other structures, or assume a heteromorphous aspect by participating in the characters of two different organs. It results therefore that the appended parts of plants, and also those of the Articulata, are all evidently of equivalent import, and it is assuredly a remarkable fact, that this conformity should exist in their respective metamorphoses.

In tracing the series of developments throughout the appendages of the Articulata, we first of all recognize *that the appendages become modified by the progress of age in the same individual, in a manner corresponding to that by which they are modified through the progress of organization in individuals of different species.* Thus the legs are the simplest form of appendages, to which succeeds in some cases the more or less complicated structure of the antennæ, in others that of the maxillæ. But these phænomena do not cease here. It is to be observed, moreover, *that the appendages are manifested at an earlier period of the existence of an Articulate animal the more complex its degree of organization, and vice versâ, that they make their appearance the later, the fewer the number of transformations which it has to undergo.* The degree of importance, or at least the complication of an appendage, may be therefore judged of by the very period of existence in which it is first developed.

The structure of appendages furnishes us, besides, with the explanation of certain cases of monstrosity, of the kind called "*monstrosities by division.*" It is seen, for example, how these monstrosities reproduce accidentally, as regards certain appendages which are usually simple, a degree of organization which is the normal con-